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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,445	06/23/2003	Arpan A. Desai	MSFT-1791/304064.1	7709
41505	7590	07/12/2006	EXAMINER	
WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) ONE LIBERTY PLACE - 46TH FLOOR PHILADELPHIA, PA 19103			GORTAYO, DANGELINO N	
			ART UNIT	PAPER NUMBER
			2168	
DATE MAILED: 07/12/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,445	<b>Applicant(s)</b> DESAI ET AL.	
	<b>Examiner</b> Dangelino N. Gortayo	<b>Art Unit</b> 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-8, 10-15 are pending.
2. This Office Action is response to Applicants' Amendment filed 4/25/2006.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-7, 9, 10-12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nasr et al ("Nasr" US # 6,882,995 B2) in view of Fernandez et al. (6,785,673).

As per claim 1, Nasr discloses "a method of communicating with an application" (see Abstract) "comprising: the system receiving from the application, one or more calls to set one or more compile parameters and commands for converting one or more input queries to an XML intermediate language representation" (column 3 lines 10-18 wherein the compiler receives queries and converts it to an abstract query language) "and the system receiving from the application, one or more calls to convert the XML intermediate language representation to at least one executable query, the at least one executable query enabling the system to query over a plurality of data sources having

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differing data models” (column 3 lines 58-65 and column 10 lines 18-21, wherein the abstract query language is transformed into query engine instructions to be executed and can query any server connected to a network, such as the Internet). Nasr does not disclose “wherein the XML intermediate language representation is a composite of the plurality of input queries”.

Fernandez teaches “wherein the XML intermediate language representation is a composite of the plurality of input queries” (column 5 lines 11-17 and column 6 line 61 – column 7 line 4, wherein a query composer module takes XML-QL user queries and composes them with a view query, to be translated to an intermediate representation). It would have been obvious at the time of the invention for one of ordinary skill in the art to combine Nasr’s method of query evaluation and execution with Fernandez’s ability to compose multiple input queries to be transformed to an intermediate language. This gives the user dynamic control over queries, specifying parts of the document a user is interested in. The motivation for doing so would be to fully exploit the query processing ability of the XML language. (column 2 lines 11-15)

As per claim 2, Nasr discloses “the application receiving from the system one or more of the group consisting of event status, progress status, intermediate results, final results, error messages, warnings and help messages” (column 4 lines 7-14 wherein progress status, intermediate results, and final results are received from the engine).

As per claim 5, Nasr discloses “the XML intermediate language representation is a semantic representation of an input query” (column 3 lines 26-33 wherein the abstract query language represents the input query).

As per claim 6, Nasr and Fernandez are disclosed in claim 1 above. Additionally, Fernandez teaches “converting the XML intermediate language to the executable query comprises preparing the XML intermediate language for direct execution in a target query execution engine, wherein the direct execution avoids the use of a compiler for the target execution engine” (Figure 1 and column 7 lines 9-19, wherein a compiler is not used to convert from an intermediate language to an executable SQL queries).

As per claim 7, Nasr discloses “converting the XML intermediate language to the executable query comprises converting the XML intermediate language into a target representation using a target generator” (column 6 lines 50-67 wherein the abstract query language is converted into query engine instructions using the query compiler and is analogous).

As per claim 9, Nasr discloses “A system for the construction of executable queries utilizing the method of claim 1 for communicating with an application” (figure 5 and column 9 lines 28-34).

As per claim 10, Nasr discloses “A system for compilation and execution of input queries producing query results” (see Abstract) “a plurality of target generators wherein a composite XML intermediate language representation is transformed into a plurality of target queries” (column 3 lines 26-33 wherein the abstract query language is transformed into query engine instructions) “a plurality of data sources for querying over” (column 3 lines 58-65 and column 10 lines 18-21, wherein the abstract query language is transformed into query engine instructions to be executed and can query

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any server connected to a network, such as the Internet) “a plurality of execution engine wherein the plurality of target queries are executed over the plurality of data sources to produce the query results” (column 3 lines 31-41 and column 10 lines 18-21, wherein query results and continuation states is output by the Query Engine Abstract Machine).

Nasr does not disclose “a plurality of input devices for receiving a plurality of input queries; one or more intermediate language compilers wherein a composite XML intermediate language representation is compiled from the plurality of input queries”.

Hernandez discloses “a plurality of input devices for receiving a plurality of input queries; one or more intermediate language compilers wherein a composite XML intermediate language representation is compiled from the plurality of input queries” (column 3 lines 13-16). (column 5 lines 11-17 and column 6 line 61 – column 7 line 4, wherein a query composer module takes XML-QL user queries and composes them with a view query, to be translated to an intermediate representation). It would have been obvious at the time of the invention for one of ordinary skill in the art to combine Nasr’s method of query evaluation and execution with Fernandez’s ability to compose multiple input queries to be transformed to an intermediate language. This gives the user dynamic control over queries, specifying parts of the document a user is interested in. The motivation for doing so would be to fully exploit the query processing ability of the XML language. (column 2 lines 11-15)

As per claim 11, Nasr and Fernandez are disclosed as per claim 1 above. Additionally, Fernandez teaches “the plurality of input queries comprises a queries

formed from one or more of XPath, XSLT, and XQuery languages” (column 4 lines 61-63, wherein XML-QL is used, and is a XML query language).

As per claim 12, Nasr discloses “the XML intermediate language representation expresses the meaning of the input query” (column 3 lines 58-64 wherein the abstract query language comes from the input query).

As per claim 14, Nasr discloses “the plurality of data sources comprise one or more of relational data sources and non-relational data sources” (column 4 lines 4-6 and lines 63-65 wherein data is stored in relational databases or in memory).

As per claim 15, Nasr discloses “non-relational data sources comprise spreadsheets and word processing documents” (column 10 lines 31-56)

4. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nasr et al (“Nasr” US # 6,882,995 B2) in view of Fernandez et al. and further in view of Wynblatt et al. (“Wynblatt” US # 6,961,728 B2).

As per claim 3, Nasr discloses “the one or more calls to set one or more environment, compile parameters and compile commands” (column 3 lines 24-33 wherein the query engine accepts calls for compile parameters). Nasr does not disclose “comprise one or more of enabling message reception from the system, specifying query permission and execution restrictions, selecting the input query and compiler type, and establishing evaluation contexts”. Wynblatt discloses “comprise one or more of enabling message reception from the system, specifying query permission and

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execution restrictions, selecting the input query and compiler type, and establishing evaluation contexts” (column 19 lines 7-31 wherein a Just-In-Time compiler allows user to create functionality that establishes query parameters and is analogous). It would have been obvious at the time of the invention for one of ordinary skill in the art to combine Nasr’s method of query evaluation and execution and Fernandez’s ability to compose multiple input queries to be transformed to an intermediate language with Wynblatt’s message processing for parameter in programs. This gives the user added control in query processing. The motivation for doing so would be to provide the user with more efficient, sophisticated, and flexible query capabilities and techniques.

As per claim 4, Nasr discloses “the compiler type comprises XPath, XSLT and XQuery language compilers” (column 6 lines 32-46 wherein the XSL specification is used for transformation, of which XSLT stems from).

5. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nasr et al (“Nasr” US # 6,882,995 B2) in view of Fernandez et al. in view of Kiernan et al. (“Kiernan” US # 6,934,712 B2).

As per claim 8, Nasr discloses “the target representation” (column 6 lines 32-39). Nasr does not disclose “is one or more of the group consisting of an XML language target, a SQL language target and an intermediate language target”. Kiernan discloses “is one or more of the group consisting of an XML language target, a SQL language target and an intermediate language target” (column 7 line 59 – column 8 line 6 wherein an XML language target, SQL queries, and the intermediate language are generated



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from the intermediate representation, which stems from input queries). It would have been obvious at the time of the invention for one of ordinary skill in the art to combine Nasr's method of query evaluation and execution and Fernandez's ability to compose multiple input queries to be transformed to an intermediate language with Kiernan's grouping of intermediate representation consisting of an XML language target, a SQL language target and an intermediate language target. This gives the user added control in query evaluation. The motivation for doing so would be to query data as XML for increased performance.

As per claim 13, this claim is rejected on grounds corresponding to the arguments given above for rejected claim 8 and is similarly rejected.

### ***Response to Arguments***

6. Applicant's arguments filed 4/25/2006 have been fully considered but they are not persuasive.

a. Applicants' argument stated as "Nasr fails to disclose an intermediate language representation that is a composite of the plurality of input queries that also queries over a plurality of data sources"

In response to Applicant's arguments, examiner utilizes another source, Fernandez (US Patent 6,785,673 B1), to overcome the amended limitation to form the basis of a USC 103 rejection. Fernandez teaches a method of forming a representation from a composition of multiple input queries, as stated in the

rejection above. In regards to the limitation stating that the intermediate representation queries over a plurality of data sources, Examiner respectfully disagrees. Nasr states that his invention, as executed by clients using a web browser, queries different servers connected via a network such as the Internet (column 10 lines 18-21). Querying over the Internet means that various data sources are queried and searched to meet an input query's requirements. The same argument above is applied to independent claim 10.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dangelino N. Gortayo whose telephone number is (571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dangelino N. Gortayo  
Examiner

A handwritten signature in black ink, appearing to read 'Tim T. Vo', with a stylized flourish at the end.

Tim T. Vo  
SPE